

STAYDRY® GA2000-2

Particle and Moisture Getter Patented Technology

DESCRIPTION

STAYDRY GA2000-2 paste is designed for use in a variety of high performance/high reliability electronic applications. GA2000-2 is a tacky material when cured and functions as both a particle and moisture getter for applications requiring PIND testing and increased operating life in hostile environments. GA2000-2 meets or exceeds the limits for a getter material as stipulated in MIL-STD-883D, Method 5011.3.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

TYPICAL PROPERTIES

Material Properties	Value
A. Uncured	
Appearance	Blue Paste
Viscosity (kcps)	40 to 80 @ 5 rpm
Storage Temperature	(Use when Mixed)
Shelf life (mixed)	24 hours
Cure Temperature	2 hours @ 150°C
Thermal Stability @ 200°C	<0.5% Weight loss by TGA
Thermal Stability @ 250°C	<1.7% Weight loss by TGA
Typical Operating Range	(-55 to 200)°C
Density	>1.25g/cc
Moisture Activation Temperature	30 minutes @ 225°C
Moisture Absorption	≥ 2% by weight
B. Electrical Properties - Cured	
Dielectric Constant @ 10 ² Hz	2.72
Dielectric Constant @ 10 ⁵ Hz	2.71

Material Properties	Value
Dissipation Factor @ 10 ² Hz	0.0007
Dielectric Constant @ 10 ⁵ Hz	<0.0002
Dielectric Strength	470 Volts/mil (75mil thick sample)
Volume Resistivity	>1x10 ¹⁵ ohm-cm
C. Ionic Purity Levels - Cured	
Na+	<50 ppm
K+	<50 ppm
Cl-	<200 ppm
F-	<50 ppm

INDUSTRY APPLICATIONS

RECOMMENDED COVERAGE = 50% of lid surface @ 0.003" thick

GA2000-2 Moisture Absorption
Absorption Cap = 2% total weight
1" x 1" x 0.003" = 73mg
73mg x 2% = 1.46mg

STAYDRY GA2000-2 can also be employed as a particle getter only, by eliminating the moisture activation step during final application or assembly.

MIXING OF GA2000-2 MATERIAL

STEP 1: Thoroughly blend 10 parts (by weight) of Part A (blue) to 1 part (by weight) of Part B (clear).

STEP 2: Blend Components A & B so as not to entrap air bubbles. Continue mixing until mixture is a homogeneous blue color. De-gas material in a vacuum chamber if necessary.

STEP 3: Once blended, use within 24 hours. Do not reuse later after prolonged exposure to air.
Note: Tackiness of material can be modified by changing the mix ratio of Parts A & B.

Moisture Gain Process Window data is based on dried HiCap2000 exposed to constant moisture and humidity. Weight gain is measured as percent moisture gain over time of dried material. Specific time to final package assembly after thermal processing is customer specific.

RECOMMENDED PROCESSING PROFILE

APPLY - (Once the material is thoroughly mixed), via screen print or dispense onto package lid or inside the package. Print using a 60 to 105 mesh stainless steel screen with suitable back side emulsion to achieve a 2-3mil wet deposition of material.

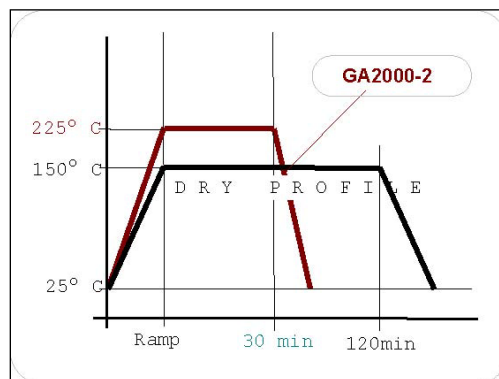
Ensure substrate surface is thoroughly cleaned.

DRY - Dry after application of material, dry at 150 °C for 2 hours. The resulting surface should be tacky and adhered to applied surface.

ACTIVATE - Activate Getter prior to sealing by heating to 225 °C for 30 minutes. Store parts in a dry box or activate immediately.

SEAL – Seal package **immediately** after activation step. 90% of moisture getter capacity will be lost after 45 minutes exposure to normal humidity at 25 °C.

CURE SCHEDULE



SHIPPING & STORAGE

STAYDRY GA2000-2 parts A & B have a shelf life of 12 months from manufacturing date when stored separately. GA2000-2 parts A & B can be stored at room temperature and there are no special shipping or storage concerns.

Once GA2000-2 A & B are mixed, pot life at 25°C is 24 hours.

SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use.

Safety Data Sheets are available..

WASTE TREATMENT

Prior to using any recommendations or suggestions for waste treatment, the user is required to know the appropriate local/state/federal regulations for on-site or off-site treatment which may require permits. If there is any conflict regarding our recommendations, local/state/federal regulations take precedent.

CONTACT INFORMATION

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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